LISTING OF THE CLAIMS

1. (Previously presented) A hydrogen permeable foil, in an amorphous state, comprising:
a non-crystalline zirconium-nickel alloy composed of:
44 to 75 atom % of zirconium; and
0.2 to 16 atom % of aluminum;
wherein the balance being nickel and unavoidable impurities.

2. (Previously presented) The hydrogen permeable foil of claim 1 wherein, the nickel content is less than or equal to 43 atom %.

3. (Previously presented) A hydrogen permeable foil, in an amorphous state, comprising:
a non-crystalline zirconium-nickel alloy composed of
44 to 75 atom % of zirconium; and
0.2 to 12 atom % of at least one of vanadium and niobium;
wherein the balance being nickel and unavoidable impurities.

4. (Previously presented) The hydrogen permeable foil of claim 3 wherein, the nickel content is less than or equal to 43 atom %.

5. (Currently amended) A hydrogen permeable foil, in an amorphous state, comprising:
a non-crystalline zirconium-nickel alloy composed of
44 to 75 atom % of zirconium;
0.2 to 12 atom % of niobium; and
0.1 to 10 atom % of phosphorus, wherein the combined amount of niobium and phosphorus is less than or equal to 18 atom %,
~~with the balance being~~ the amount of nickel being greater than the amount of niobium or phosphorus and the balance unavoidable impurities.

6. (Currently amended) The hydrogen permeable foil of claim 5, wherein the nickel content is ~~less than or equal to~~ between 19 and 43 atom %.

7. (Previously presented) A hydrogen permeable foil, in an amorphous state, comprising a non-crystalline nickel-zirconium alloy composed of:

44 to 75 atom % of nickel; and

0.2 to 16 atom % of aluminum;

wherein the balance being zirconium and unavoidable impurities.

8. (Previously presented) A hydrogen permeable foil, in an amorphous state, comprising a non-crystalline nickel-zirconium alloy composed of:

44 to 75 atom % of nickel; and

0.2 to 12 atom % of at least one of vanadium and niobium,

wherein the balance being zirconium and unavoidable impurities.

9. (Previously presented) A hydrogen permeable foil, in an amorphous state, comprising a non-crystalline nickel-zirconium alloy composed of:

44 to 75 atom % of nickel;

0.2 to 12 atom % of niobium; and

0.1 to 10 atom % of phosphorus; wherein the combined amount of niobium and phosphorus is not more than 18 atom %,

wherein the balance being zirconium and unavoidable impurities.

10. (Previously presented) The hydrogen permeable foil of claim 1, further comprising palladium thin film on both sides of the foil.

11. (Previously presented) The hydrogen permeable foil of claim 3, further comprising palladium thin film on both sides of the foil.

12. (Previously presented) The hydrogen permeable foil of claim 5, further comprising palladium thin film on both sides of the foil.

13. (Previously presented) The hydrogen permeable foil of claim 7, further comprising palladium thin film on both sides of the foil.

14. (Previously presented) The hydrogen permeable foil of claim 8, further comprising palladium thin film on both sides of the foil.

15. (Previously presented) The hydrogen permeable foil of claim 9, further comprising palladium thin film on both sides of the foil.

16. (New) The hydrogen permeable foil of claim 3, wherein the foil has a high-purity hydrogen gas flow rate of 40 ml/min or more.